

BMSW4003

Digital Skills and Research Methods

Research Title: The Impact of Virtual Learning Environment (VLE); A
Case Study on Moodle

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Introduction

Background of the study

With the progress in the field of science and technology, the world has observed a revolution in the education sector. In recent times, this sector has been digitalized to a great extent. Education has become more accessible to all. Even in the coronavirus pandemic, due to which educational institutions have been forced to suspend offline activities, academic activities are being continued online. This has been possible for the implementation of a virtual learning environment or VLE (Wolff et al., 2013). A virtual learning environment is a digital platform that allows the students and teachers to simulate a physical classroom-like experience. By using VLEs, teachers can take classes, provide recording videos and tutorials, send eBooks, take quizzes, etc. Students can also access these materials as well as can ask any questions to their teachers by simply typing in the question. Education institutions around the world use different types of VLEs. Moodle is a version of the VLE that is used in the University of Wales, Trinity Saint David London Campus. Moodle was first released almost 18 years ago. Since then, it has received many updates and improvements and thus, received the current state. Thanks to Moodle, the academic activities of the students of the University of Wales has been easier. In brief, this platform has influenced the students' learning experience.

Considering this, the research topic, 'The Impact of Virtual Learning Environment (VLE); A Case Study on Moodle' was selected. In this research paper, the researcher will try to comprehend how this platform is affecting the students' learning experience. To do so, relevant primary and secondary data will be assessed. Also, a questionnaire will be developed and a survey will be conducted based on the questionnaire. Finally, the outcome of the research will be presented appropriately.

Research aim and objectives

Research aim

This paper aims to evaluate the influence of Moodle (a VLE) on the students of the University of Wales.

Research objectives

- To conduct primary and secondary research on Moodle.
- To evaluate relevant literature on the influence of Moodle (a VLE) on the students of the University of Wales.
- To recommend how the student's learning environment and experience can be improved.

Research questions

- How Moodle is influencing the students' learning environment and experience?
- Are students getting benefitted by Moodle?
- How the platform can be improved?

The rationale of the research

Due to the coronavirus pandemic, offline academic activities of the University of Wales have been suspended indefinitely. However, academic activities are going on in Moodle. In the pandemic situation, the students and the teachers are heavily dependent upon VLEs like Moodle to ensure quality education to all (Vuopala et al., 2016). Nevertheless, it must be ensured that the students are getting properly benefitted by Moodle in the trying times. Also, constant improvements must be made to ensure that the platform is becoming more and more student-friendly. Considering all this, the topic of the research was selected.

Research hypothesis

Alternative hypothesis

The students are getting positively influenced by virtual learning environments like Moodle.

Null hypothesis

The students are getting negatively influenced by virtual learning environments like Moodle.

Literature review

The impact of Moodle among the students

A virtual learning environment is a digital platform that allows the students and teachers to simulate a physical classroom-like experience. Moodle is one such virtual learning environment. The students of the University of Wales are continuing their academic activities in Moodle. In this coronavirus pandemic, taking classes directly on the campus is impossible. Therefore, online classes are the only solution. Moodle offers plenty of benefits to make the management of online classes easier (Vaganova et al., 2017). In this pandemic, students may not always be capable of attending the classes according to a schedule. However, students can watch the class recording videos via Moodle at their suitable time. This also enables even those students to continue to study who have part-time jobs or infant babies. Also, many students and their families are facing financial problems in the pandemic. To solve this problem, course materials, books, notes can be shared via Moodle free of cost. Moodle has other impacts too (Psycharis et al., 2013). By using Moodle, the cost of education can be reduced greatly. Students who are learning via Moodle does not have to spend on campus fees and transportation fees. Besides, foreign students can also obtain degrees from the university by learning remotely through Moodle. So, considering all these, it can be said that Moodle has positively impacted the learning experience and learning environment of the students.

The challenges faced by the University to implement Moodle

Like all virtual learning environments, Moodle has some drawbacks too. These drawbacks imposed some challenges to both teachers and students regarding the efficacy of the VLE. First of all, taking practical classes in Moodle or any VLEs is impossible. Some departments, especially science-related departments have some courses where practical works play a significant role. Without these practical classes, the learning of students remains incomplete. However, these classes cannot be taken through Moodle. Secondly, some dishonest students can easily cheat in tests taken through Moodle as there is no way to prevent it. Thirdly, some student requires constant attention from the teachers as they cannot study without strict rules and supervision. Such students may find classes in Moodle boring and unattractive. Fourthly, students need digital devices and a strong internet connection. It can be a burden for students coming from poor families.

The university's response to overcome the challenges

Virtual learning elements like Moodle has some limitations. These limitations can decrease their efficacy. However, the authority and the teachers at the University of Wales have taken some steps to overcome the challenges and provide the students with a better learning

experience. The teachers at the university are trying to improve the course structures to make them better suited for the virtual learning environment. They are incorporating video materials, audio clips, MCQ tests, role-playing into the course structure so that the students become more attached to the course contents (Hampel and Pleines, 2013). Also, students are regularly given assignments and reports (both group work and individual) to motivate them into studies. These assignments and reports also help to ensure that the students are studying, not just killing their time. The university administration has also arranged to provide needy students with financial aid so that they can manage digital devices to attend online classes. Still, some limitations remain. However, the efficacy of Moodle in the pandemic is unquestionable.

Research methodology

Research philosophy

Research philosophy is concerned with the researcher's method of collecting data from the universe. There are many types of research philosophies. However, positivism research philosophy will be applied. This research philosophy focuses on factual data that is derived from the universe (Opie, 2019). The researcher can rely upon such type of data and can easily analyse it to make the research successful.

Research approach

In this research, the deductive research approach will be implemented. This approach will give the researcher a clear idea of how the information will be collected, processed, and assessed. The deductive approach will be used with qualitative data to make the research fruitful. Since the research itself is based on a qualitative topic, the data will be mostly qualitative. However, some quantitative data will be there too. Especially, the financial condition of the students will be needed, which is quantitative data.

Research method

The researcher will use the qualitative research method in this report. By using this method, the researcher will try to understand how the VLE is impacting the educational experience of the students and how the students feel about it (Cohen et al., 2013). Aside from this, the researcher will also try to know why the students are feeling in a particular way about the virtual learning environment.

Data collection method

For this report, both primary data and secondary data will be used. Primary data will be gathered by asking some questions about the research topic to the students of the University of Wales. Secondary data will be gathered from existing research about the virtual learning environment (Becerra-Romero et al., 2019). To gather primary data, the researcher will create a questionnaire by using Google forms. During the coronavirus pandemic, this will enable the researcher to research a safe way. And the secondary data will be collected from various articles, journals published on the virtual learning environment.

Research information

The individuals taking part in the research will be informed about the ins and outs of the research before beginning. Any information gathered for the research will not be shared with other parties without prior permission of the owners. The data will be stored in digital storage media with strong password protection. Thus, the privacy of the data will be assured.

Data analysis

Primary data analysis

Primary data analysis plays a very significant role in this research. The students of the University of Wales are using Moodle to continue their studies during the pandemic. So, to understand the impact of the virtual learning environment in the students' education and life, their feedback is very much important (Mkansi and Acheampong, 2012). To achieve this, the researcher will prepare a questionnaire. The questionnaire will be prepared digitally by using Google Forms. Although primary data for research of a similar topic is done by using face-to-face interviews, due to the coronavirus pandemic, the author has no way other than using a digital questionnaire. The questionnaire will contain some questions like:

- How the students are viewing online academic activities?
- How many hours do the students pass in Moodle per day?
- What are the most beneficial traits of Moodle?
- How Moodle can be improved?
- How the students are getting benefitted from Moodle?
- How the students are holding up financially amid the pandemic?
- Was arranging for a laptop was a problem for the students?
- What activities are taken by the university authority to alleviate the problems of the students?

Since the answers to the questions can be quite sensitive, the author will fully ensure the privacy of the students partaking in the research.

Secondary data analysis

To analyse secondary data, data from already published research will be used. To do so, the researcher will look for already existing research information. Then the secondary information will be analysed in the context of the questions given above. By using secondary data, the researcher will be able to make the research more conclusive. It will save both time and money. Aside from this, the impact of a virtual learning environment on students other than the University of Wales will also be known. Therefore, using secondary data is very much important.

Conclusion

Day by day, the importance of virtual learning is increasing. Online learning or virtual learning has many benefits which are already mentioned in this research paper. It has some flaws too, but the benefits outweigh the flaws by a great margin. And, in the coronavirus pandemic, online learning has no substitutes. To facilitate online learning, virtual learning environments are developed. Nevertheless, it is important to know that online education is being fruitful in trying times. Hence, the research topic was selected. This research will allow the related persons to understand the influence of VLEs and how to improve the process.

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